

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* YAACOV ALMOG

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Appeal 2006-2968  
Application 10/039,481  
Technology Center 1700

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Decided: May 15, 2007

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Before BRADLEY R. GARRIS, PETER F. KRATZ, and CATHERINE Q. TIMM, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

We AFFIRM.

This is a decision on an appeal under 35 U.S.C. § 134. We have jurisdiction under 35 U.S.C. § 6.

The Appellant invented a method for preparing a liquid toner for electrostatic development of electrostatic images. The method involves coating pigmented polymer particles with an ionomer whereupon the

particles obtain a certain chargeability adequate for the previously mentioned electrostatic development. The appealed subject matter is adequately illustrated by independent claims 30, 32, and 33, which read as follows<sup>1</sup>:

30. A method for preparing a liquid toner for electrostatic development of electrostatic images, which method comprises:

dispersing pigmented polymer particles in an insulating non-polar carrier liquid;

mixing at least one ionomer, which is not soluble at room temperature, with the liquid containing the pigmented polymer particles;

coating the pigmented polymer particles with the at least one ionomer;

and adding at least one charge director to the liquid containing the coated pigmented polymer particles;

wherein the pigmented polymer [sic, pigmented polymer particles] comprises [sic, comprise] a material suitable for use as a toner material in an electrostatic image development application, but which in the presence of charge director alone is unchargeable or not chargeable to an extent suitable for electrostatic development of electrostatic images; and

wherein the at least one ionomer is used in an amount effective to impart enhanced chargeability to the toner particles to an extent that the particles can be used to develop an electrostatic image.

32. A method for producing a liquid toner for an electrostatic imaging method, which imaging method requires that said toner comprise toner

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<sup>1</sup> We observe that the claim reproductions in the Brief Appendix are inaccurate. Therefore, we have copied the illustrative claims for this decision from the actual claims pending in the application file rather than from the Appendix reproductions.

particles having a given particle conductivity, said method for producing a liquid toner comprising:

dispersing pigmented polymer particles in an insulating non-polar carrier liquid to form a dispersion;

mixing at least one ionomer which is not soluble at room temperature with the dispersion to form a mixture;

coating the polymer particles with the at least one ionomer; and

adding a charge director to said mixture,

wherein said coating provides to said particles a chargeability sufficient to give said toner particles said given particle conductivity.

33. A method for preparing a liquid toner for a particular process of electrostatic development of electrostatic images, said particular process requiring a given level of toner charge, the toner comprising chargeable toner particles dispersed in a carrier liquid and at least one charge director, the method comprising:

providing at least one charge director;

providing a toner precursor material comprising toner precursor particles dispersed in an insulating non-polar carrier liquid, the particles comprising a core material including a pigmented polymer suitable for use as a toner material in the particular process for electrostatic development of electrostatic images, but which is unchargeable by the at least one charge director or which is weakly chargeable by the at least one charge director to an extent that it is not useable in electrostatic development of latent images in the particular process;

coating the toner precursor particles with at least one ionomer component in an amount effective to impart enhanced chargeability to the pigmented polymer to an extent that the coated particles can be used to develop a latent electrostatic image in the particular process for electrostatic

development of electrostatic images, thereby forming said chargeable toner particles, and

adding said at least one charge director, in an amount suitable for charging the chargeable toner particles to said given level.

The references set forth below are relied upon by the Examiner as evidence of obviousness:

|           |              |               |
|-----------|--------------|---------------|
| Metcalf   | US 3,078,231 | Feb. 19, 1963 |
| Whitbread | US 3,325,409 | June 13, 1967 |
| Wagner    | US 3,438,904 | Apr. 15, 1969 |

Schaffert, "Electrophotography," John Wiley & Sons, New York, 69-73 (1975).

|              |               |              |
|--------------|---------------|--------------|
| Uytterhoeven | EPA 0 176 630 | Apr. 9, 1986 |
|--------------|---------------|--------------|

Diamond, Handbook of Imaging Materials, New York, Marcel Dekker, Inc., 233 (1991).

Claims 32-46 are rejected under the first paragraph of 35 U.S.C. § 112 for failing to comply with the written description requirement.

Claims 32-44, and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Uytterhoeven in view of Whitbread in view of Diamond, Metcalfe, and Wagner.

Claims 30-44, and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Uytterhoeven in view of Schaffert in view of Diamond, Metcalfe, and Wagner.

For a complete understanding of the opposing viewpoints expressed by the Appellant and by the Examiner concerning the above-noted

rejections, we refer to the Brief, filed April 29, 2004<sup>2</sup>, and the Rely Brief, (i.e., response to Examiner's Answer, filed August 30, 2004) and to the Answer, filed June 25, 2004.

### OPINION

We will sustain each of these rejections for the reasons expressed in the Answer and below.

#### The § 112 Rejection

The first paragraph of § 112 has been construed to mandate that the Specification satisfy two closely related requirements. First, it must describe the manner and process of making and using the invention so as to enable a person of skill in the art to make and use the full scope of the invention without undue experimentation. Second, it must describe the invention sufficiently to convey to a person of skill in the art that the patentee had possession of the claimed subject matter at the time of the application, that is, that the patentee invented what is claimed. *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345-46, 76 USPQ2d 1724, 1731 (Fed. Cir. 2006).

We agree with the Examiner that claims 32-46 fail to comply with the written description requirement of § 112. As correctly explained by the Examiner, these claims encompass methods which have not been described

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<sup>2</sup> We do not refer to the revised Brief, filed August 30, 2004, because it corresponds to the April 20, 2004 Brief except for the "Grouping of the Claims" section. As a matter of clarification in this latter regard, our disposition of this appeal has included a full consideration of each argument advanced for each claim grouping as presented in both of these Briefs.

in the Appellant's Specification and Drawing disclosure sufficiently to convey to a person of skill in the art that the Appellant had possession of the invention defined by the rejected claims at the time the application was filed.

For example, independent claims 32 and 46, as well as the claims which depend therefrom, encompass a method wherein the ionomer coating provides to the pigmented polymer particles a chargeability which is less than (or the same as) the chargeability of an uncoated particle. The Appellant's disclosure does not describe such a method and would not have conveyed to an artisan that Appellant had possession of such a method. As more fully explained in the Answer, this is because Appellant's disclosure describes a method wherein the ionomer coating enhances or increases the chargeability of, or reverses the polarity of, particles which, in the absence of ionomer coating, have no or weak chargeability such that they would be of little or no utility in electrostatic imaging (Specification 6-7).

Similarly, independent claim 33, as well as the claims which depend therefrom, encompass a method wherein the ionomer coating enhances particle chargeability to an extent that the coated particles can be used in a particular process for electrostatic development of electrostatic images but not in other electrostatic development processes. Again, Appellant's disclosure would not have conveyed to an artisan that Appellant had possession of a method wherein the coated particles were provided with enhanced chargeability adequate for one particular process but not another. As detailed above and in the Answer, the Specification and Drawing for this application describe only increasing or enhancing particle chargeability or reversing particle polarity with respect to electrostatic development

processes in general, as opposed to achieving such desiderata for one particular process but not another.

In support of written description compliance, the Appellant refers to various disclosures in the Specification and Drawing which describe achieving the earlier discussed desiderata. Clearly, however, these disclosures do not expressly describe the specific methods discussed above which are encompassed by the rejected claims. Moreover, while the Appellant contends that an artisan would understand the application disclosure to include such specific methods, no evidence of any kind has been submitted in support of this contention.

Under these circumstances, it is our determination that the Examiner has established a prima facie case of non-compliance with the written description requirement of § 112 which the Appellant has failed to rebut with persuasive argument or evidence to the contrary. We hereby sustain, therefore, the Examiner's § 112, first paragraph, rejection of claims 32-46.

### The § 103 Rejections

With respect to each of these rejections, the Examiner states that Uytterhoeven does not disclose a pigmented polymer and does not disclose a charge director in the process of making liquid toner (Answer 6, 9). The Examiner relies on the additionally applied references to support his conclusion that it would have been obvious for an artisan to use in the toner producing method of Uytterhoeven pigmented polymer particles (e.g., rather than carbon black particles) as well as a charge director. In the Examiner's view, an artisan would have so combined the applied reference teachings in

order to obtain the stable (i.e., enhanced) particle charge associated with Uytterhoeven's anionic polymer (i.e., ionomer) coating (Uytterhoeven 1-2) and the benefits associated with the pigmented polymer particles and charge director of the other applied references.

The Appellant argues that an artisan would have had no motivation to use the pigmented polymer particles of the prior art (i.e., Whitbread or Schaffert) as the coloring substance on which Uytterhoeven applies anionic polymer (i.e., ionomer). Reply Br. 9-11. We do not agree.

A teaching, suggestion, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, suggestion, or motivation may be implicit from the prior art as a whole. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 cited with approval in *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007).

An artisan would have been motivated to combine the reference teachings in the proposed manner for the reason discussed above. This determination is reinforced by the fact that Uytterhoeven expressly discloses coating color substance particles of, not only carbon black but also, organic pigment dyes (i.e., pigmented polymer particles). Uytterhoeven 11-12.

The Appellant's remaining arguments concerning various claim features have been successfully rebutted by the Examiner on pages 17-19 of the Answer, and we adopt these rebuttals as our own.

In light of the foregoing, we also sustain the § 103 rejection of claims 32-44 and 46 over Uytterhoeven, Whitbread, Diamond, Metcalfe, and



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Wagner as well as the § 103 rejection of claims 30-44, and 46 over  
Uytterhoeven, Schaffert, Diamond, Metcalfe, and Wagner.

#### Conclusion

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with  
this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(effective Sept.  
13, 2004).

AFFIRMED

CATHERINE Q. TIMM, concurring

I agree with my colleagues that the decision of the Examiner to reject claims 32-46 under 35 U.S.C § 112, ¶ 1 should be sustained. However, my reasoning differs.

The Examiner has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). The Examiner here points out the Specification only discloses using pigmented polymer particles with weak or no chargeability or using particles which have reverse polarity (Answer 3-4; Specification 4:35-5:1, 5:11-16, 5:30-34, 5:37-6:3; 6:32-7:30) whereas claims 32 and 46 do not limit the level of chargeability of the pigmented polymer particles (Answer 3-4). The Examiner's claim interpretation is reasonable in light of the fact that the step of dispersing the pigmented polymer particles does not include any language limiting their chargeability. Appellant contends that "only an increase in the charge is defined, since claims 32 and 46 define the coating as *providing* a sufficient chargeability, indicating that it did not have same without the coating." (Br. 6). We cannot say that the language cited by Appellant is sufficient to show that the Examiner's interpretation of the claims is unreasonable. The fact that the coating provides to the particles a chargeability sufficient to give the toner particles the given particle conductivity does not foreclose the possibility that the pigment particles have themselves a sufficient chargeability to allow imaging.

By pointing to the fact that a claim reads on embodiments outside the scope of the description, the Examiner has satisfied the initial burden in support of the written description rejection. Appellant thus has the burden of showing why persons skilled in the art would recognize in the disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 257, 263, 191 USPQ 90 at 97. Appellant merely points to portions of the Specification disclosing pigmented polymer particles having some conductivity and states that it would be clear to a person of ordinary skill in the art that the invention is concerned with taking toner particles that are somewhat chargeable and increasing their chargeability (Br. 6). But this misses the point. The Examiner's rejection is based on the fact that the claims encompass dispersing particles with higher than weak chargeability and then applying the coating such that the coating provides a chargeability that is sufficient for imaging yet the same or lower than that of the initially dispersed particles. Nor has Appellants provided any evidence to support what those of ordinary skill in the art would have thought the Specification discloses. Appellant has not met the burden in rebuttal.

While a description of the invention which is narrower than the subject matter encompassed by the claims will not always result in a failure to fulfill the written description requirement of 35 U.S.C. § 112, first paragraph, *see In re Smythe*, 480 F.2d 1376, 1382, 178 USPQ 279, 284 (CCPA 1973), "the case law does 'not compel the conclusion that a description of a species always constitutes a description of a genus of which it is a part'" either. *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479, 45 USPQ2d 1498, 1503 (Fed. Cir. 1998)(quoting *Regents of the Univ.*

*of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1568, 43 USPQ2d 1398, 1405 (Fed. Cir. 1997)). “It is a truism that a claim need not be limited to a preferred embodiment. However, in a given case, the scope of the right to exclude may be limited by a narrow disclosure.” *Id.* Each case turns on its own facts. *In re Smythe*, 480 F.2d at 1382, 178 USPQ at 284.

With regard to claim 33, the Examiner satisfies the initial burden by pointing out that claim 33 introduces a new concept not present in the Specification, namely the concept that the pigment polymer particles can have chargeability suitable for some imaging processes, but be unsuitable for others. While the Specification does discuss using pigment particles with weak chargeability, it defines such particles as those that “although the skilled person would be aware that a weak charge could be imparted to the particles it would be apparent that this property would be of little or no utility so far as practical applications in electrostatic imaging were concerned.” This suggests that the weak chargeability is unsuitable for any imaging application, not just for a given application. The introduction of a new concept indicates that there is no support for the claim language. *See In re Anderson*, 471 F.2d 1237, 1244, 176 USPQ 331, 336 (CCPA 1973)(“The question, as we view it, is not whether ‘carrying’ was a word *used* in the specification as filed but whether there is *support* in the specification for employment of the term in a claim; is the concept of carrying present in the original disclosure?”). This analysis satisfies the Examiner’s burden thus shifting the burden to Appellant.

Appellant argues that claim 33 defines the pigment particles as being unusable in a given process since they do not charge enough and states that

this is “exactly what a person of the art would have understood as the utility of the methodology or chargeability increase taught by the disclosure and shown in the figures.” (Br. 7). But Appellant does not identify where the Specification discusses the concept of suitability for a given process, but not suitable for others. Nor does Appellant provide objective evidence of what those of ordinary skill in the art would have understood when reading the Specification. Therefore, we cannot say that Appellant has met the burden in rebuttal.

With regard to the § 103 rejections, I agree with the determination and reasoning of my colleagues in full.

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